



## **DAMPENING DEVICE FOR HIGH LIFT JACKS**

### **CROSS-REFERENCE TO RELATED APPLICATIONS**

5           [001] The present application claims priority to copending US provisional application entitled "Handle Hugger," having serial no. 60/463,400 filed by inventor Michael K. Schwitzing on April 17, 2003, which is entirely incorporated herein by reference.

### **FIELD OF THE INVENTION**

10           [002] The present invention relates to jacks and, more specifically, to dampening devices for high lift jacks.

### **BACKGROUND OF THE INVENTION**

15           [003] There are many types of jacks and jacking systems. Some jacks employ a vertically oriented I-beam upon which the jack climbs when the jack handle is activated. These jacks are commonly referred to a "high lift jacks" or "farmer's jacks." A well-known example of a "high lift jack" is sold by Bloomfield Manufacturing Co., Inc. under the trademark HI-LIFT®. Information regarding the HI-LIFT® jack can be found on the website authored by Bloomfield Manufacturing Co.,  
20           Inc. at [www.hi-lift.com](http://www.hi-lift.com).

[004] It can be advantageous to carry a high lift jack in a vehicle, particularly when the vehicle is driven off road. One drawback to carrying a high lift jack in a vehicle is that the jack's handle moves relative to the I-beam. For example, when driving a vehicle with a high lift jack, the jack handle vibrates against the I-beam causing noise and ultimately damaging the high lift jack. This situation is intensified when the vehicle is driven in off-road situations. What is needed is a convenient, economical and effective dampener that can secure a high lift jack without negatively affecting the usability and versatility of the high lift jack.

## **SUMMARY OF THE INVENTION**

[005] The invention is summarized below only for purposes of introducing embodiments of the invention. The ultimate scope of the invention is to be limited only to the claims that follow the specification.

[006] The invention is summarized as dampening device for high lift jacks. The dampener is a one-piece flexible member having two shafts: the first shaft for the I-beam of the high lift jack and the second shaft for the jack handle. The dampener slides over the I-beam and the jack handle respectively to snugly secure the jack handle to the I-beam. The dampener prevents the jack handle of a high lift jack from swinging and rattling against the I-beam when the high lift jack is not in

use. The dampener can also be quickly and easily removed from the jack handle when the high lift jack is needed for use.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

5           [007] **FIG. 1** illustrates a perspective view of the preferred embodiment of the dampener in use with a high lift jack.

          [008] **FIG. 2A** illustrates a top view of the preferred embodiment of the dampener.

          [009] **FIG. 2B** illustrates a side view of the preferred embodiment of the  
10 dampener.

          [010] **FIG. 3** a perspective view of the preferred embodiment of the dampener.

### **DESCRIPTION**

          [011] The description that follows is intended to aid in the understanding but  
15 not limit the actual scope of the invention. It is to be understood that the description below is merely illustrative of the presently preferred embodiments of the invention and that no limitations are intended to the detail of construction or design herein shown other than as defined in the appended claims.

          [012] As used herein, "high lift jack" refers to any jack that employs a  
20 vertically oriented I-beam **6** upon which the jack climbs when the jack handle **8** is

activated. A popular example of a high lift jack is sold by Bloomfield Manufacturing Co., Inc. under the trademark HI-LIFT®. Information regarding the HI-LIFT® jack can be found on the website authored by Bloomfield Manufacturing Co., Inc. at [www.hi-lift.com](http://www.hi-lift.com).

5 [013] Broadly, the dampening device comprises a one-piece flexible member **10**, wherein the one-piece flexible member **10** has a first shaft **12** and a second shaft **14**. The first shaft **12** and the second shaft **14** are substantially parallel to each other and both fully penetrate the one-piece flexible member **10**. It is preferred that the cross section of the first shaft **12** be substantially the same shape as the cross  
10 section of the I-beam **6** of the high lift jack. It is preferred that the cross section of the second shaft **14** be substantially the same shape as the cross section of the jack handle **8** of the high lift jack.

[014] It is preferred that the size of the first and second shaft **12**, **14** be slightly smaller than the cross section of the I-beam **6** and jack handle **8** to achieve a  
15 snug fit. For example it is preferred that the diameter of the first shaft **12** be 1.33 inches for use with the HI-LIFT® jack. Similarly, it is preferred that the second shaft **14** have a length of 1.95 inches, a flange thickness of 0.60 inches, a flange width of .88 inches and a web thickness of .38 inches for use with the HI-LIFT® jack. Other sizes can be adapted to fit other jacks. It is preferred that the one-piece flexible  
20 member **10** be 4.63 inches long, 1 inch thick and have a minimum of 0.25 inches

between the edge of the one-piece flexible member **10** and the edge of the first or second shafts **12, 14**.

[015] Many flexible yet resilient materials can be used for the one-piece member. It is preferred to use urethane but other materials known in the art such as polyurethane, ethylene propylene diene terpolymer (or "EPDM"), rubber, closed cell foam, composite blends, or plastic could also be used. It is preferred to manufacture the one-piece member using an injection mold process. Other methods of manufacture known in the art can also work, including cnc water jet cutting and cast molding.

[016] To use the dampening device, one would slide the first shaft **12** onto the I-beam **6** and slide it down to a point approximately even with the end of the jack handle **8** when the jack handle **8** is rotated so that it is substantially parallel to the I-beam **6**. The user would then slide the second shaft over the jack handle **8** as shown in **FIG. 1**. To use the jack, the user would slip the one-piece flexible member **10** off the jack handle **8** and use the jack with the one-piece flexible member **10** still on the I-beam **6**. The user would only need to slide the one-piece flexible member **10** along the I-beam **6** if necessary. When the user is finished using the jack, the user could again rotate the jack handle **8** so that it was substantially parallel to the I-beam **6** and slide the second shaft over the jack handle **8** as shown in **FIG. 1**.

[017] Although the invention has been described in detail with reference to one or more particular preferred embodiments, persons possessing ordinary skill in

the art to which this invention pertains will appreciate that various modifications and enhancements may be made without departing from the spirit and scope of the claims that follow.